

## REMARKS

### I. Summary of the Examiner's Action

#### A. Claim Rejections

In paragraph 1 at the bottom of page 2, the Examiner rejected claims 1, 2, 4, 7, 8, 10 and 13 under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 6,115,616 to Halperin *et al.* (hereinafter "the Halperin patent").

In paragraph 2 at page 6, the Examiner rejected claims 3 and 9 under 35 U.S.C. § 103(a) as being unpatentable over the Halperin patent, and further in view of United States Patent No. 6,222,458 to Harris (hereinafter "the Harris patent").

In paragraph 3 at page 6, the Examiner rejected claims 5, 6, 11, 12 and 14 - 18 under 35 U.S.C. § 103(a) as being unpatentable over the Halperin patent, and further in view of United States Patent No. 5,958,023 to Klein (hereinafter "the Klein patent").

In paragraph 4 at page 9, the Examiner rejected claims 19 and 20 under 35 U.S.C. § 103(a) as being unpatentable over the Halperin and Klein patents as applied to claim 17, and further in view of United States Patent No. 6,326,934 to Kinzie (hereinafter "the Kinzie patent").

II. Applicants' Response – Claim Rejections

A. Rejection of Claims 1, 2, 4, 7, 8, 10 and 13  
under 35 U.S.C. § 103(a)

Claim 1, as originally presented, is reproduced here with emphasis added to show the subject matter which is neither described nor suggested by the references of record:

1. (Original) A mobile station, comprising:
  - a communication part that comprises a controller, an RF transceiver and an antenna; and
  - a self-powered information entry part comprising a keypad or keypad module that is detachable from said communication part and that is coupled, whether attached or detached, through a wireless link to said communication part for conveying keystroke information from said information entry part to said communication part.

The Examiner has changed the basis of rejection of claim 1, holding that:

Reference Halperin fails to teach wireless communication between keypad and handset when the keypad is attached to the handset (in Halperin, when the keypad is attached to the handset (see fig. 2), a switch S2 activates the contacts C2 and deactivates the transmitter T2 and the receiver R2 in the clipped position and activates the transmitter T2 and receiver R2 and deactivates the contact C2 in the unclipped position.). However, those skilled in the art would recognize that the above difference would not render the claim patentable over the reference Halperin, because it would merely depend on how one would like to have the keypad communicate with the handset (either wireless or not) when they are attached together.

Therefore it would have been obvious to one of ordinary skill in the art at the time of [sic] the invention was made to modify reference Halperin such that the keypad communicate wirelessly with the handset when they are attached together in order to simplify the circuitry design of the handset and keypad since the keypad and handset in reference Halperin are already capable of wireless communicating with each other.

June 9, 2004 Office Action, page 3, lines 8 – 21. (emphasis added).

At least one problem with the Examiner's approach is that Halperin does not teach that it is at the whim of one of ordinary skill in the art how the keypad communicates with the mobile unit when the keypad is attached to the mobile unit; rather, Halperin teaches that the keypad communicates with the mobile unit through wired connections, *i.e.*, through contacts when attached:

According to the invention, there is provided a detachable keyboard which can equip both wireless handsets and cellular phones. In the preferred embodiment, a keyboard card is clipped to the rest of the handset and is completely detached from the body when unclipped. Wireless communication between the body and keyboard is used when the card is unclipped, while contacts are activated in the clipped position so that the wireless handset then functions as in the case of a non detachable keyboard. Alternatively, one can also use a version where the keyboard card is linked to the rest of the handset by a wire and can be easily clipped and unclipped to the body of the handset. Moreover, the handset according to the invention can be easily adapted to standard wired telephones to achieve similar advantages.

Halperin, Column 1, lines 35 – 49 (emphasis added).

Further, the reproduced section of the Examiner's rejection above would give one the impression that Halperin is silent with respect to how its preferred embodiment may be modified; in fact, Halperin is *not* silent. Rather, Halperin teaches that the *wireless* feature of the keyboard may be deleted for the purpose of simplification:

To avoid the need for a secondary battery, as well as the need of the transmitter/receiver E1-R2 combination, one can also use a wired communication between the keyboard card 16 and the main body 10. The frequent problems of wire knotting can be easily avoided for this configuration since the extension only needs to be about three feet long.

Halperin, Column 3, lines 19 – 24. (emphasis added)

As a result, Halperin is more concerned with providing wired connections between the detachable keypad and the mobile unit than wireless connection; note that a wired connection is taught by Halperin both with the detached keypad *and* with the attached keypad, but a wireless connection with the attached keypad is *not* taught. In view of this omission, Applicants do not understand how the Examiner concludes that it would have been obvious to provide a wireless connection between the attached keypad and the mobile unit; if it had been so obvious, it would have occurred to Halperin and Halperin would have described such a wireless connection.

Further, in view of how Halperin suggests that its preferred embodiment may be modified, Applicants submit that one of ordinary skill in the art would conclude that Halperin teaches away from Applicants' invention.

For the preceding reasons, Applicants respectfully submit that claim 1 is patentable over the Halperin reference, as are similar independent claims 7 and 13. Since claims 1, 7 and 13 are patentable over the Halperin reference, dependent claims 2, 4, 8 and 10, which depend from one of these independent claims, are likewise patentable over the Halperin reference.

B. Rejection of Claims 3 and 9 under  
35 U.S.C. § 103(a)

Regarding the rejection of claims 3 and 9, since Applicants submit that it would not have been obvious to substitute a wireless connection for the contacts of the Halperin reference when the keyboard of the Halperin reference is attached to the mobile unit, neither would it have been obvious to substitute a wireless connection operating according to a particular wireless protocol, *i.e.*, the Bluetooth protocol. For these reasons, Applicants respectfully submit that claims 3 and 9 are likewise patentable over the combination of the Halperin and Harris references.

C. Rejection of Claims 5, 6, 11, 12 and 14 - 18 under  
35 U.S.C. § 103(a)

Regarding the rejection of claims 5, 6, 11, 12 and 14 – 18, Applicants respectfully submit that these claims are likewise patentable over the combination cited by the Examiner, or any of the references of record, whether taken singly or in combination. For example, claim 6 recites a “mobile station . . . wherein said source is further comprised of at least one battery.” As stated previously with respect to claim 1,

Applicants respectfully submit that Halperin teaches away from the subject matter of Applicants' invention, particularly the portion of the Halperin patent at column 3, lines 19 – 24 previously reproduced. Halperin teaches in the direction of *eliminating* the wireless connection and *adopting* a wired connection for the detached keyboard to save the additional expense of a battery and wireless transceiver. In view of this fact, Applicants do not understand how Examiner can state that it would have been obvious in view of the Halperin reference to delete the wired connection! For the sake of argument only, Applicants respectfully request that the Examiner identify a portion of the Halperin patent which suggests there would be some benefit with dispensing with the wired connection.

Claims 15 and 17 have been amended to recite the subject matter of claims 16 and 18, respectively. As amended, claims 15 and 17 are patentable for reasons similar to those recited with respect to claim 1. Claims 16 and 18 have been canceled.

For these reasons, Applicants respectfully submit that claims 5, 6, 11, 12, 14, 15 and 17 are patentable over the combination of the Halperin and Klein patents.

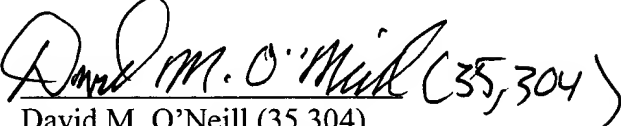
D. Rejection of Claims 19 and 20 under  
35 U.S.C. § 103(a)

Since claims 19 and 20 depend from independent claims which Applicants respectfully submit are patentable, claims 19 – 20 are likewise patentable.

III. Conclusion

The Applicants submit that in light of the foregoing amendments and remarks the application is now in condition for allowance. Applicants therefore respectfully request that the outstanding rejections be withdrawn and that the case be passed to issuance.

Respectfully submitted,

  
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